Tracking the Impacts of COVID-19

Updated August 5, 2020
COVID-19 Has Forced Several Airlines Across the Globe to Restructure or Cease Operations
Airline Bankruptcies and/or Shutdowns From March 1 to Present

**United States**
- Compass Airlines
- Miami Air International
- RavnAir Group
- Trans States Airlines

**Outside the USA**
- Aeromexico (Mexico)
- Air Mauritius (Mauritius)
- Alitalia (Italy)
- Avianca (Colombia)
- Comair (South Africa)
- Flybe (UK)
- German Airways (Germany)
- Germanwings (Germany)
- LATAM (Chile)
- South African (S. Africa)
- Thai Airways (Thailand)
- TAME (Ecuador)
- Virgin Atlantic (UK)
- Virgin Australia (Australia)

Source: A4A research
New U.S. Cases of COVID Surged in Mid-June, Leveled Off in Late July

U.S. Cases Surpassed 60,000 per Day in July

Source: World Health Organization and U.S. Centers for Disease Control and Prevention
“The consensus among health experts is that the pandemic may now be at or near its peak in some regions, but COVID-19 will remain a threat until a vaccine or effective drug treatment is made widely available, which may not occur until the second half of 2021.”

S&P Global GDP Growth Forecasts* for 2020

- USA: -5.0%
- China: -7.8%
- Eurozone: -8.1%
- UK: -4.9%
- Japan: -5.0%
- India: -7.0%
- Brazil: -3.8%
- World: 1.2%

Source: Standard & Poor’s, “The Global Economy Begins A Slow Mend As COVID-19 Eases Unevenly, (July 1, 2020)

* S&P Global Economics and Oxford Economics
We Are Unlikely to See a Return to 2019 Passenger Volumes Before 2023
Revenues Will Take Even Longer to Recover

“[C]urrent traffic trends are below what we had previously forecast…and the resurgence of COVID-19 in some areas of the US adds uncertainty around potential further travel restrictions. We are now incorporating a significantly less steep recovery to 2019 levels of demand, particularly for corporate/international markets. As such, we materially reduce our forecasts through 2022.”

Goldman Sachs: U.S. Airline Industry Passengers vs. 2019 Levels*

<table>
<thead>
<tr>
<th>Year</th>
<th>2020E</th>
<th>2021F</th>
<th>2022F</th>
<th>2023F</th>
<th>2024F</th>
<th>2025F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passengers</td>
<td>-56%</td>
<td>-30%</td>
<td>-12%</td>
<td>1%</td>
<td>6%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Source: Goldman Sachs, “Expecting slower demand recovery, but positive on long-term industry profitability” (June 28, 2020)
For U.S. Airlines Passenger Volumes* Remain 74 Percent Below Year-Ago Levels
In Week Ending August 4 – Domestic Air Travel Down 72 Percent, International Down 89 Percent

7-Day Rolling Year-Over-Year Change (%) in Onboard Passengers

Source: A4A member passenger airlines as reported to A4A on a consolidated company basis (including branded code share partners)

* Onboard (“segment”) passengers
For U.S. Passenger Airlines, Worldwide Departures Remain 52 Percent Below 2019 Levels
In Week Ending August 4 – Domestic Flights Down 49 Percent, International Flights Down 80 Percent

Source: A4A member passenger airlines as reported to A4A on a consolidated company basis (including branded code share partners)
Despite Schedule Cuts, Domestic Flights Averaging Far Fewer Passengers Than a Year Ago

7-Day Moving Average Onboard Passengers* per Domestic U.S. Flight

Source: A4A member passenger airlines as reported to A4A on a consolidated company basis (including branded code share partners)

* Onboard ("segment") passengers
Domestic U.S. Load Factor Averaged 45% in Most Recent Week, Versus 89% a Year Earlier

Weekly Average Domestic Load Factor* (%)

Source: A4A member passenger airlines as reported to A4A on a consolidated company basis (including branded code share partners)

* Revenue passenger miles divided by available seat miles

airlines.org
In the Week Ending August 2, U.S. Carrier International Flights Averaged 78 Passengers*

Source: A4A member passenger airlines as reported to A4A on a consolidated company basis (including branded code share partners) * Onboard (“segment”) passengers
For U.S. Airlines, Decline in Passenger Traffic Continuing to Exceed Capacity Cuts*

Airlines Are Struggling to Keep Pace With the Severe Drop in Demand for Air Travel

[Graph showing 7-Day Rolling Year-Over-Year Change (%) in Systemwide Traffic and Capacity]

Source: A4A member passenger airlines as reported to A4A on a consolidated company basis (including branded code share partners)

* RPM = revenue passenger mile; ASM = available seat mile
TSA Checkpoint Traveler Throughput* Down 72 Percent Year Over Year
Daily Average Bottomed Out at 95K in April 11-17

TSA Traveler Throughput: 7-Day Moving Average (in Thousands)

Source: Transportation Security Administration

* U.S. and foreign carrier customers traversing TSA checkpoints; 2019 is year-ago same weekday
Travel to the State of Hawaii* Is Almost Nonexistent – Down 93 Percent Year Over Year

On March 26, the State of Hawai‘i initiated a mandatory 14-day self-quarantine for all passengers arriving from out of state. (On April 1, it was expanded to include interisland travel.)

Source: Hawaii Department of Business, Economic Development & Tourism

* Daily passenger counts include returning residents, intended residents and visitors but exclude interisland and Canada passengers.
In July, TSA Checkpoint Volumes Declined Most in New York, Hawaii, DC, Vermont and MA/NJ

% Change in Traveler Throughput by U.S. State – July 2020 vs. July 2019

Source: TSA
The Rapid Decline of Demand – Especially Business Travel – Has Pummeled Airline Revenues

YOY Change (%) in Operating Revenues*:

- 1Q20: (17.4)
- 2Q20: (86.5)

Total Operating Revenues* (Cents) per ASM:

- 1Q 2019: 14, 2020: 12
- 2Q 2019: 15, 2020: 9
- 3Q 2019: 15, 2020: 14
- 4Q 2019: 15, 2020: 15

Source: A4A analysis of reports by Alaska, Allegiant, American, Delta, Hawaiian, JetBlue, Southwest, Spirit and United

* As reported on a consolidated company basis for systemwide operations
Sales* for Future Air Travel From U.S. Airports Remain Highly Depressed
Net Booked* Revenue Down 89 Percent From 2019 on Evaporation of Business Travel

Source: Airlines Reporting Corporation (ARC) for most U.S. and foreign carriers for any flight to/from/within the United States

* Sales transactions minus refunds, for all future travel up to 330 days out.
Domestic Air Cargo Demand Continues to Outperform Most U.S.-International Regions

Asia Up on Non-China Volumes

<table>
<thead>
<tr>
<th>Month</th>
<th>Domestic %</th>
<th>International %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>2.8</td>
<td>(5.4)</td>
</tr>
<tr>
<td>Feb</td>
<td>2.2</td>
<td>(7.0)</td>
</tr>
<tr>
<td>Mar</td>
<td>3.1</td>
<td>(17.0)</td>
</tr>
<tr>
<td>Apr</td>
<td>3.1</td>
<td>(16.5)</td>
</tr>
<tr>
<td>May</td>
<td>4.7</td>
<td>(10.7)</td>
</tr>
</tbody>
</table>

% Change YOY in Air Cargo* Between the United States and World Areas – U.S. and Foreign Airlines

Source: Bureau of Transportation Statistics, T1 (U.S. carriers) and T-100 International Market (U.S. and foreign flag carriers)

* Pounds of freight and mail enplaned in scheduled and nonscheduled services
Airlines Are Taking a Wide Variety of Self-Help Actions to Reduce Cash Burn
Selected Examples of Actions to Improve Cash Flow From Operations, Investing and Financing

» Making historic capacity cuts, parking and/or retiring older aircraft (and, in some cases, entire fleet types)
» Utilizing passenger planes on cargo-only missions, either belly-only or belly and main cabin
» Cutting executive compensation and implementing voluntary leave and early retirement programs
» Freezing hiring and non-essential spending (e.g., employee travel, consultants, events, marketing, training)
» Consolidating footprint at airport facilities (e.g., concourses); shuttering lounges; halting real estate projects
» Simplifying onboard product (e.g., food and beverage)
» Negotiating with vendors: cobranded credit cards, airports (i.e., zero-interest rent deferrals), regional airline partners (i.e., reduced block hours), fuelers, caterers, etc. to achieve relief on payment terms/timing
» Deferring aircraft deliveries and reducing non-aircraft (e.g., ground equipment, IT) capital expenditures
» Raising funds via capital markets: borrowing funds via unsecured or secured loans and/or selling stock
» Selling/mortgaging aircraft/engines/other assets
» Suspending capital return programs, including share repurchases and the payment of future dividends

Source: A4A and member companies
Twenty-Nine Percent of the U.S. Passenger Airline Fleet Remains Idle

Peak Occurred in Mid-May

Source: masFlight

### U.S. Passenger Airlines: Idled Aircraft*

<table>
<thead>
<tr>
<th>Date</th>
<th>Number of Aircraft</th>
<th>% of Active Fleet</th>
</tr>
</thead>
<tbody>
<tr>
<td>31-Dec</td>
<td>300</td>
<td>5</td>
</tr>
<tr>
<td>31-Jan</td>
<td>353</td>
<td>6</td>
</tr>
<tr>
<td>29-Feb</td>
<td>316</td>
<td>5</td>
</tr>
<tr>
<td>31-Mar</td>
<td>1,171</td>
<td>19</td>
</tr>
<tr>
<td>30-Apr</td>
<td>3,002</td>
<td>52</td>
</tr>
<tr>
<td>18-May</td>
<td>3,204</td>
<td>49</td>
</tr>
<tr>
<td>31-May</td>
<td>2,991</td>
<td>49</td>
</tr>
<tr>
<td>30-Jun</td>
<td>2,403</td>
<td>39</td>
</tr>
<tr>
<td>31-Jul</td>
<td>1,874</td>
<td>30</td>
</tr>
<tr>
<td>2-Aug</td>
<td>1,810</td>
<td>29</td>
</tr>
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* Idle defined as inactive for the previous seven days

Source: masFlight
U.S. Airlines Have Kept the Lion’s Share of Older Aircraft and/or Widebodies Grounded
Smaller Aircraft Proving More Suitable to a Deflated, Domestic-Oriented Air-Travel Marketplace

U.S. Passenger Airlines: % of Fleet Idled by Aircraft Type as of June 30, 2020*

<table>
<thead>
<tr>
<th>Aircraft Type</th>
<th>% Idled</th>
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<tbody>
<tr>
<td>M80</td>
<td>100</td>
</tr>
<tr>
<td>M90</td>
<td>100</td>
</tr>
<tr>
<td>SF3</td>
<td>88</td>
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<tr>
<td>767</td>
<td>86</td>
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<td>777</td>
<td>79</td>
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<td>330</td>
<td>73</td>
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<tr>
<td>757</td>
<td>72</td>
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<tr>
<td>ATR</td>
<td>69</td>
</tr>
<tr>
<td>787</td>
<td>51</td>
</tr>
<tr>
<td>717</td>
<td>44</td>
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<tr>
<td>ERJ</td>
<td>43</td>
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<tr>
<td>32S</td>
<td>37</td>
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<tr>
<td>CRJ</td>
<td>36</td>
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<tr>
<td>T12</td>
<td>33</td>
</tr>
<tr>
<td>350</td>
<td>31</td>
</tr>
<tr>
<td>737</td>
<td>31</td>
</tr>
<tr>
<td>EMJ</td>
<td>26</td>
</tr>
<tr>
<td>BNI</td>
<td>25</td>
</tr>
<tr>
<td>DH8</td>
<td>12</td>
</tr>
<tr>
<td>CNA</td>
<td>10</td>
</tr>
<tr>
<td>220</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: masFlight

* Idle defined as inactive for the previous seven days
Lower Jet-Fuel Prices Have Provided Some Cost Relief, But Rising Again With More Flying

Price of Jet Fuel (U.S. Gulf Coast, $ per Gallon)

Sources: Energy Information Administration (EIA) Weekly Petroleum Status Report
Decline in Demand for Air Transportation Has Meant Greatly Reduced Jet-Fuel Consumption

% Change YOY in U.S. Airline Industry Fuel Consumption

Source: Bureau of Transportation Statistics F41 Schedule P12A, all services
U.S. Airlines Are Facing an Elevated Breakeven Load Factor Throughout 2020
In April-September 2020, Even a Load Factor of 100 Percent Would Not Suffice

Source: Wolfe Research estimates and filings of Alaska, Allegiant, American, Delta, Hawaiian, JetBlue, Southwest, Spirit and United

Breakeven Load Factor* (%)

2019A  75.9
1Q20A  78.5
2Q20E  126.9
3Q20F  106.4
4Q20F  88.5

* Calculation excludes CARES Act payroll support program funds
Collectively, U.S. Airlines Will Burn Cash Through the Remainder of 2020
Lower Burn Rate Depends on Progress in Reducing Costs and Timeline for Return of Travel Demand

Estimated Monthly Cash Burn* (in Billions), U.S. Passenger Airlines

Source: A4A, BofA Global Research and Wolfe Research

* Ticket and cargo sales - cash operating expenses - cash refunds - capital expenditures - interest expense – repayment of debt
COVID-19 Will Leave U.S. Carriers Highly Leveraged, Reversing Years of Progress for Most
Total Debt Projected to Increase 50 Percent From End of 2019 to End of 2020

“For 2021 and beyond, we anticipate a major deleveraging cycle as the industry will have no choice but to address its significant debt load.” (Deutsche Bank, “Airline Industry Update,” July 1, 2020)

Source: Wolfe Research and filings of Alaska, Allegiant, American, Delta, Hawaiian, JetBlue, Southwest, Spirit and United

* Net debt divided by EBITDA (earnings before interest, taxes, depreciation and amortization)
In 2020, S&P Has Lowered Its Credit Ratings on Every U.S. Passenger Airline*

Ratings Actions Taken to Reflect Weakened Financial Condition and Heightened Risk

Source: Standard & Poor's

* Publicly traded U.S. carriers in S&P Global coverage universe
With the U.S. Economy Contracting, Unemployment Is Rising

“On 8 June, the…National Bureau of Economic Research made official what we already knew: February marked the end of the longest…US economic expansion on record… Yet this also may prove to be the briefest recession on record…

We still expect a grudging recovery, with GDP …not surpassing the previous peak (as of Q4 2019) until mid-2022, and with the economy not regaining full employment until late 2023.”

Source: IHS Markit, “Executive Summary: US Economic Outlook” (June 2020 for quote; July 2020 for data)
After 9/11 and the Global Financial Crisis, it took years for air-travel demand to recover. Passenger volumes took more than seven years to recover from the Financial Crisis/Oil Spike.

Source: A4A Passenger Airline Cost Index and Bureau of Transportation Statistics (Form 41 Schedule T1)

* Passengers enplaned systemwide on U.S. airlines in scheduled and nonscheduled services.
After 9/11 and the Global Financial Crisis, it took years for air-cargo demand* to recover. Cargo volumes took 10 years to recover from the financial crisis/oil spike.

Source: Bureau of Transportation Statistics (Form 41 Schedule T1)

* Cargo revenue ton miles (RTMs) flown on U.S. passenger and cargo-only airlines in scheduled and nonscheduled services.
Zoom’s Market Value Exceeds That of All U.S. Passenger Airlines Combined

Source: Google Finance (Aug. 3, 2020)

<table>
<thead>
<tr>
<th>Company</th>
<th>Equity Market Capitalization (Billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoom</td>
<td>$75.2</td>
</tr>
<tr>
<td>Clorox</td>
<td>$29.2</td>
</tr>
<tr>
<td>US Pax Airlines*</td>
<td>$58.9</td>
</tr>
<tr>
<td>FedEx</td>
<td>$44.4</td>
</tr>
<tr>
<td>UPS</td>
<td>$99.5</td>
</tr>
</tbody>
</table>

* Alaska, Allegiant, American, Delta, Hawaiian, JetBlue, Southwest, Spirit and United
Key Points

» In the first two months of 2020, operating revenues grew more than 5 percent – we were on our way to another record.

» After burning ~$10B per month of cash in late March, U.S. airlines are burning over $5B per month in summer 2020.

» Air travel took 3 years to recover from 9/11 and 7+ years from the global financial crisis. Air cargo took 10 years post-GFC.

» When traffic returns, low-yield (VFR, then vacationers) is likely to return faster than high-yield (corporate) and international, with implications for the pace of revenue recovery, the need for cost reduction/containment, and the return to profitability.
  - Businesses first cut back hiring and travel and entertainment; in a recovery, those are the last things they restore. These travelers are essential due to how often they fly and the cabins/fares they purchase, among other reasons.

» People will be reluctant to travel – or even to book travel – until there is a strong degree of confidence that the health crisis and associated risks are behind us. The COVID-19 global pandemic constitutes a black swan-like public health crisis that will only be solved once an effective vaccine is developed, but vaccines usually take a year or longer to develop.

» In addition to concerns about the spread of the virus and the associated restrictions on the movements of citizens, businesses and consumers are facing a sharp global economic downturn of unknown duration.
  - The economic and consumer psychology effects of COVID-19 are deep and global.
  - High unemployment and reduced HHNW worth + strained government coffers = curtailed travel budgets for households and organizations.

» Once demand has recovered, it will take years for airlines to retire the newly accumulated billions of dollars of debt and to address the sizable associated interest expense, limiting their wherewithal to rehire and reinvest.
Airlines Take Action

U.S. airlines are taking substantial, proactive steps to protect passengers throughout this COVID-19 global pandemic, and we’re calling on everyone — from gate agents, pilots, flight cabin crew, to the passengers — to work together to protect each other.

Below are some resources on what it means to Fly Healthy and Fly Smart.

> See our "Fly Healthy. Fly Smart." infographic.